

**Before The
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of

**Revision of the Commission's Rules To
Ensure Compatibility With Enhanced 911
(E911) Emergency Calling Systems**

CC Docket 94-102

To: Wireless Telecommunications Bureau

**REQUEST OF EDGE WIRELESS LICENSES, LLC FOR LIMITED
WAIVER OF THE COMMISSION'S PHASE II E911 RULES**

Edge Wireless Licenses, LLC ("Edge"), pursuant to 47 C.F.R. § 1.925, hereby requests a **limited waiver** of certain of the Phase II enhanced 911 (E911) requirements set forth in 47 C.F.R. § 20.18.¹ Specifically, Edge seeks a waiver of certain elements of the handset availability schedule and location accuracy requirements set forth in Subsections 47 C.F.R. §§ 20.18(g) and (h). The waiver is necessary because, at this time, integrated-GPS handset solutions for TDMA networks or network-based solutions that meet the Phase II accuracy requirements for rural TDMA networks are not available and therefore cannot be timely deployed to meet the Phase II implementation requirements. As set forth below, the grant of the limited waiver request would serve the public interest.

¹ A waiver of the Commission's rules applicable to public mobile services is appropriate when ever a party demonstrates either (1) that the underlying purpose of the rule would not be served or would be frustrated by its application to the instant case, and that grant of a waiver would be in the public interest, or (2) in view of unique or unusual factual circumstances to the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative. 47 C.F.R. § 1.948.

BACKGROUND

1. Edge is licensed to operate PCS wireless systems covering 1.2 million potential subscribers in eleven rural Basic Trading Areas in Idaho, Oregon, California and Wyoming. It has already notified the Commission that it intends to utilize a handset-based solution to meet the E911 requirements.² Edge has determined that a handset-based technology is the most viable solution for carriers that serve rural markets. The Commission itself has formally recognized this.³ Unfortunately, GPS-enabled handsets are not available in TDMA systems to timely meet the Commission's E911 requirements. Nevertheless, Edge's proposal, as described below, will substantially meet the FCC's handset availability schedule and location accuracy requirements (*See* also Exhibit 1, whereby Edge sets out the specific Phase II E911 requirements that it is seeking a waiver).

Discussion

2. Edge intends on offering a GPS-enabled accessory, which is now commercially available and can be retrofitted on eighty-five percent (85%) of the existing handsets (i.e., Nokia handsets) being used on Edge's network ("GPS Accessory"). This GPS Accessory will allow the subscriber to transmit GPS-generated location information through the wireless network to the PSAP, without any modifications to the carrier network. In adopting this implementation method, Edge will satisfy the E911 rules for TDMA handsets with minimal extensions of the handset availability schedule and location accuracy requirements as reflected in Exhibit 1 while providing a ALI capable path for legacy TDMA handsets on our network.

² See Edge's E911 Phase II Report on file with the Commission.

³ Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Third Report and Order*, 14 FCC Rcd 17,388, 17,390-91 (1999).

3. At this time, the Commission is well aware that E911 options currently available to TDMA networks to satisfy E911 standards are very limited, especially in rural areas. Whereas, several large carriers, whose service areas are predominately urban, have chosen the Mobile-Assisted Network Location System (“MNLS”) technology, that technology is not suited for rural service areas. Similarly, Edge’s network, which serves predominantly rural areas where there is a wider geographic dispersion of cell sites, is not well suited to a “pure” network-based technology, such as Time Difference of Arrival (“TDOA”) or Angle of Arrival (“AOA”). Moreover, its subscriber base is also geographically dispersed, making these network solutions less practicable and potentially more time-consuming to implement. Hence, in rural areas, a handset-based technology, such as the GPS Accessory, will provide a more accurate solution than a network-based technology. Specifically, the GPS Accessory will be able to make a location determination within 70 meters for 80 percent of the calls, well below the Commission’s requirement of 150 meters set forth in 47 C.F.R. § 20.18(h)(2).

4. Finally, the GPS Accessory is highly reliable, relatively easy to integrate into Edge’s service offerings, and will be immediately available for distribution. Also, the GPS Accessory option will provide the PSAP with real-time location updates throughout the call. Further, unlike an assisted GPS system, the GPS Accessory will operate when the subscriber is roaming in AMPS networks. Moreover, the GPS Accessory option is cost-efficient as it does not require any CMRS hardware or software upgrades, and its corresponding Positioning Determining Equipment (PDE) is not cost-prohibitive and can be implemented by the PSAP.⁴ Additionally, the introduction of the GPS Accessory would not preclude Edge from either partially or fully integrating the MNLS technology onto its network for its subscriber base, as

these two E911 solutions are independent and their joint implementation does not interfere with each other in any way.

Conclusion

Based on the foregoing reasons, grant of a limited waiver of the Commission's Phase II E911 rules will serve the public interest by allowing Edge to implement a substantially accurate location technology with minimal deviation from the Commission's rules.

Respectfully submitted,

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_____/s/_____
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⁴ Edge is currently providing service in four (4) Oregon counties. It has been working with the PSAP's in its coverage area and anticipates the installation of PSAP equipment in order to receive the ALI data. For its other service areas, Edge has not received any Phase I or Phase II requests.

Exhibit 1

Commission's Phase II Rules	Edge Wireless Waiver Request	Differences
	ALI CAPABILITY TIMELINE IMPLEMENTATION	
ALI capable handsets are made available by 10/1/01	ALI capable handsets are made available by 12/31/01(GPS accessory)	Three month delay in availability
25% of new digital phone sales are ALI capable by 12/31/01	25% of new digital phone sales have ALI capability available by 03/31/02 (GPS accessory)	Three month delay in availability
50% of new digital phone sales are ALI capable by 6/30/02	50% of new digital phone sales have ALI capability available by 12/31/02 (GPS accessory)	Six month delay on ALI capability deployment from Rule
100% of new digital phone sales are ALI capable by 12/31/02	100% of new digital phone sales have ALI capability available by 3/31/03 (GPS accessory)	Three month delay on ALI capability deployment from Rule
95% ALI penetration of all handsets by 12/31/05	95% ALI penetration of all handsets by 12/31/05	No change from Rule
Must have ability to "See the Satellite"	ALI TECHNOLOGY YIELD/ACCURACY REQUIREMENTS	With operator having the capability to press The "Push to Pinpoint" button
67% of callers are located to within 50 meters	67% of callers are located to within 50 meters	No change from Rule
95% of callers are located to within 150 meters	80% of callers are located to within 80 meters	70 meter accuracy improvement from Rule; 15% yield change from Rule